Storm Water Monitoring Study During the last four years, Caltrans has collected storm water quality data from Caltrans construction sites. One of the primary purposes of the study has been to develop a baseline of Siskiyou 1998-00 construction site storm water quality. I-80 at Mace Freeway Widening/Ramp Work (2) Among others, two principal questions Roadway Widening/Rehabilitation Lassen Humboldt investigated by the study were: SR-50, west of Sunrise Boulevard Reconstruct Existing Interchange "Does construction site runoff differ Plumas Carquinez Bridge Roadway Widening/Rehabilitation significantly from freeway and highway SR-4 at Hercules Nevada storm runoff and, if so, why?" Widen Freeway 2001-2002 SR-4 near I-80 Widening/Realigning Existing Highway El Dorado "Can the constituents found in storm Alpine Albany/Berkeley water runoff from construction sites Roadway Widening/Rehabilitation Tuolumne San Joaquin be related to the type of construction San Francisco project or construction activity?" I-580/I-690 Interchange Mariposa Freeway Interchange Modifications Merced 9 SR-237/I880 Interchange Freeway Interchange Modifications Fresno Clovis/Fresno #1 New Roadway/Facility Construction **(6)** Clovis/Fresno #2 **(5)** New Roadway/Facility Construction San Luis Obispo Monitoring crews take grab samples of storm water every 20 I-210 at Kenyon minutes at selected sites. Construct Freeway and Interchange San Bernardino I-210/I-15 New Roadway/Facility Construction Santa Barbara Los Angeles 8 SR-55 at Walnut Avenue **(7**) Widen Freeway/Construct New Overpass SR-55 at Meats Avenue Riverside Widen Freeway/Construct New Overpass SR-55/SR-22 Interchange (II)Widen SR-55/Interchange Modifications San Diego I-405 east of Fairview Road SR-91 west of Washington Street I-405/SR-55 Widen Existing Highway and Bridges Modify Existing Interchange Caltrans Highway 1997-00 1998-99 1998-99 Texas 1995 El Cajon/La Mesa FHWA 1990 of Metals (ug/L) Roadway Widening/Rehabilitation New Roadway/Facility Construction 300 San Marcos SR-125 at Marina Court Interchange Modification **New Freeway Construction** 250 Concentration La Presa 200 New Roadway/Facility Construction Mean 100 50 Storm water at a construction site pools behind a Arsenic Cadmium Chromium Copper Lead Nickel Silver Zinc BMP prior to being collected for sampling. Storm water runoff from construction sites generally has a lower concentration of metals compared to highway runoff. Concrete V-ditches provide a good opportunity to collect samples at construction sites. Roadway Widening/Rehabilitation New Roadway/Facility Construction 10,000 1,000 Interchange Modification Mean Value Maximum Value Concentration of Metals (ug/L) Median Value Freeway Widening/Ramp Work/Interchange Modification Maximum Value 1,000 75% Quartile 75% Quartile (mg/L)TSS (mg/L) **Total P** 75% Quartile 75% Quartile 0.1

Mean Value

Highways



Cadmium

Total

Total

Copper

Total

than modification to existing facilities.

Storm water runoff from new construction appears to have lower concentrations of metals

Arsenic

Total

Construction Sites

Highways

0.0

Construction Sites